RECENT BIRD RECORDS FROM NORTHEASTERN COLORADO AND THEIR SIGNIFICANCE IN CONNECTION WITH GEOGRAPHICAL DISTRIBUTION

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Introduction

The present paper deals with the bird life of the plains region of northeastern Colorado, a broad level area traversed by the South Platte River and its tributaries which have their origins in the mountain streams of the Eastern Slope.

It must be remembered that this area, although in itself large, is but a small portion of the State of Colorado. Some species of birds common to the southern part of the State are uncommon or absent in this region. And of course a much different avian fauna is found in the mountains of the western portion of Colorado. Necessarily, some of the species that nest in the mountains during the summer are found on the eastern plains during the migration seasons. However, the most common north and south migration route follows the foothills region of the Eastern Slope. As will be noted from a study of the appended notes many of the earliest spring arrivals were seen in this zone. So the migrating birds tend to follow a fairly well defined route and do not spread out across the eastern plains indiscriminately. Sclater, (1912), records 392 species of birds from Colorado of which 106 are rare or casual and 167 are non-breeding migrants.

The investigations upon which these notes are based were carried on in 1924 and 1925 when the writer was a member of the Faculty of Colorado State Teachers College, located at Greeley. Greeley is situated in the plains region, some thirty miles east of the foothills and on the eastern edge of the migration route already referred to. Its location marks the junction of the South Platte and the Cache la Poudre Rivers and there are many ponds, lakes and reservoirs in the surrounding region which is largely irrigated and under cultivation.

The notes and records are drawn from almost daily observations made in or within a fifteen-mile radius of Grceley except in those instances wherein other localities are specifically designated. In making the observations all sorts of places were visited, particularly lakes, ponds, groves along the rivers and creeks, dry sagebrush land, parks, and city streets. One interesting and noteworthy fact is that a large majority of the smaller birds live in the near vicinity of towns or farm groves, obviously because of the presence of bushes and trees

in these localities. Not all of the species in the region came under observation. For instance, the smaller marsh-dwelling forms such as rails were not sought in the course of the investigation. Nevertheless, the observations form a fairly accurate basis for determining the relative abundance of most species and some of the records appear to have special significance in connection with geographical dissemination.

FAUNAL LIST

PIED-BILLED GREBE. Podilymbus podiceps. The status of this species in northeastern Colorado seems to be somewhat indefinite but it is not supposed to be as common as the Eared Grebe, Colymbus nigricollis californicus. Strangely enough no members of the latter species were recorded but a pair of Pied-billed Grebes were observed near Greeley on April 15, 1924.

RING-BILLED GULL. Larus delawarensis. A common migrant.

BONAPARTE'S GULL. Larus philadelphia. Sclater, (1912), gives a half dozen fall migration records for this species. The writer has one record, May 29, 1924, near Julesburg.

FORSTER'S TERN. Sterna forsteri. This species is a fairly common summer resident in northeastern Colorado. Observations indicate that it has considerable value as an insect-destroying species in this region. Flocks of these birds fly about over the fields seeking grasshoppers and other insects throughout the summer.

BLACK TERN. Chlidonias nigra surinamensis. A common summer resident in Weld County.

MERGANSER. Mergus americanus. One record near Eaton, October 9, 1924.

Mallard. Anas platyrhynchos. Sclater, (1912), termed this species the most common duck in Colorado. In the plains region it was seen commonly from April to July and from October to December.

GADWALL. Chaulelasmus streperus. This species proved to be very common in Weld County and remained to nest in some of the shallow lakes during the summer.

GREEN-WINGED TEAL. Nettion carolinense. A common migrant and a summer resident. Most common during April and October.

BLUE-WINGED TEAL. Querquedula discors. A common migrant and resident. The largest numbers of this species were observed during the fall migration, October 9, 1924.

SHOVELLER. Spatula clypeata. One record, June 8, 1924, at Julesburg.

PINTAIL. Dafila acuta tzitzihoa. A common migrant. In the fall this species gathers in large flocks, frequenting the lakes near Loveland in the daytime and repairing nightly to the nearby wheat fields to feed.

Canvas-Back. Marila valisineria. One record of eight individuals, near Greeley, October 9, 1924. No records of the supposedly more common Redhead, Marila americana, were obtained.

Lesser Scaup Duck. Marila affinis. Fairly common during the migration season, especially in April and November.

Canada Goose. Branta canadensis canadensis. Fairly common as a migrant.

BITTERN. Botaurus lentiginosus. This species was twice recorded; June 14, 1924 and July 21, 1924.

Great Blue Heron. Ardea herodias. One of the most common birds in northeastern Colorado. The earliest spring record was April 15, 1924. This species nests in colonies together with the Black-crowned Night Heron. One of these colonies was visited by Dr. F. C. Jean of Colorado State Teachers College and the writer in 1924. It was located on the Cache la Poudre River near Windsor. The colony was about a third of a mile in length and the nests were located in the tops of the cottonwoods and willows on both banks of the stream. One moderately large tree contained nine nests and from four to five nests were found in many trees. This particular colony has evidently been in existence for some time because items in the literature of the region make occasional reference to it. Another smaller heronry was located on the eastern bank of the South Platte River some twenty miles east of Greeley. The subspecific status of this heron was not determined.

Black-crowned Night Heron. Nycticorax nycticorax naevius. Also a very common summer resident.

Sandhill Crane. *Grus mexicana*. One record from Chamber's Lake. This locality is in the mountains but the record is included because this species is so rare.

Coot. Fulica americana. A common migrant and summer resident. Recorded from Julesburg. Loveland, Greeley, and many other localities. The largest number of individuals were observed during the fall migration, October 9, 1924.

WILSON'S PHALAROPE. Stegunopus tricolor. Occasional migrant and summer resident.

Avocet. Recurvirostra americana. Two records; May 11, 1924 and June 21, 1924, both from Loveland.

Wilson's Snipe. *Gallinago delicata*. A common migrant. Earliest spring record, May 4, 1924. Latest fall record, November 26, 1925.

Marbled Godwit. Limosa fedoa. One record, May 10, 1924. Sclater, (1912), lists this species as a rare migrant.

Yellowlegs. Totanus flavipes. One record, May 10, 1924.

Western Willet. Catoptrophorus semipalmatus inornatus. Fairly common. Earliest record, May 10, 1924.

SPOTTED SANDPIPER. Actitis macularia. A common summer resident along the South Platte and its tributaries.

Long-billed Curlew. *Numenius americanus*. One record, May 9, 1925.

KILLDEER. Oxyechus vociferus. A very common summer resident in the South Platte valley. Without doubt the most common representative of the shore bird group.

BOB-WHITE. Colinus virginianus virginianus. Found occasionally in the South Platte bottoms. A fcw individuals were seen near Greeley from time to time. Cooke, (1900), states that this species was introduced at Grand Junction in 1891 and that it was a native species at Wray on the eastern border of the State. It seems that this species has been extending its range westward.

Introduced Pheasant. Supposedly a hybrid stock of *Phasianus* colchicus and *Phasianus* torquatus. The most common gallinaceous bird in the plains region.

BAND-TAILED PIGEON. Columba fasciata fasciata. One record of four individuals, May 2, 1925.

Western Mourning Dove. Zenaidura macroura marginella. A very common summer resident. Nests in the trees about towns for the most part. The young are hatched about the end of Junc. The first spring appearance recorded was on April 10, 1925.

TURKEY VULTURE. Cathartes aura septentrionalis. One record of seven birds from Fort Morgan, June 8, 1924.

Marsh Hawk. Circus hudsonius. The most common summer resident of the hawk group with the possible exception of the Sparrow Hawk. Practically a resident species; the earliest record being January 15, 1924, and the latest December 12, 1924.

SHARP-SHINNED HAWK. Accipiter velox. One record, May 11, 1925.

COOPER'S HAWK. Accipiter cooperi. One record, May 2, 1925.

Krider's Hawk. Buteo borealis krideri. One record, December 8, 1924.

WESTERN RED-TAIL. Buteo borealis calurus. Fairly common. Records range from April 22, 1924 to December 12, 1925.

Prairie Falcon. Falco mexicanus. One record, October 4, 1924.

Sparrow Hawk. Cerchneis sparveria. A common summer resident. Earliest spring record, March 21, 1925, at Longmont.

Long-Eared Owl. Asio wilsonianus. Two records; December 12, 1924, at Kersey, and April 22, 1925, at Greeley.

Burrowing Owl. Spectyto cunicularia hypogaea. Very common summer resident wherever there are prairie dog towns.

Yellow-billed Cuckoo. Coccyzus americanus americanus. Cooke, (1900), does not mention this species. Sclater, (1912), terms it a rare summer visitor. It was observed nesting at Greeley in 1924 and 1925. This is another species that appears to be extending its range westward.

Belted Kingfisher. Ceryle alcyon. A common summer resident. Earliest record, January 15, 1924.

RED-HEADED WOODPECKER. Melanerpes erythrocephalus. An abundant summer resident, particularly in the towns. It arrives rather late, the earliest record being March 16, at Loveland.

Lewis's Woodpecker. Asyndesmus lewisi. Ordinarily an inhabitant of the mountain forests this species was observed occasionally on the plains adjacent to the foothills during the coldest weather.

RED-SHAFTED FLICKER. Colaptes cafer collaris. A common bird in or about towns during most of the year. Earliest record, January 30, 1924.

POOR-WILL. *Phalaenoptilus nuttalli*. One bird recorded on May 28, 1924. It was captured alive, having flown into a house. Its captors pronounced it an "owl".

Western Nighthawk. Chordeiles virginianus henryi. A common summér resident. Earliest record, May 28, 1924.

KINGBIRD. Tyrannus tyrannus. A common summer resident, more common toward the eastern border of the State.

ARKANSAS KINGBIRD. Tyrannus verticalis. Also a common summer resident. More common than T. tyrannus as far west as Greeley but less common than T. tyrannus northeast of Fort Morgan.

Cassin's Kingbird. Tyrannus vociferans. Occasional summer resident.

SAY'S PHOEBE. Sayornis sayus. Common summer resident. Earliest record, April 10, 1925.

HAMMOND'S FLYCATCHER. Empidonax hammondi. One record, May 14, 1924.

Desert Horned Lark. Otocoris al pestris leucolaema. An abundant resident.

MAGPIE. Pica pica hudsonia. An abundant resident.

BLUE JAY. Cyanocitta cristata. Apparently this species is extending its range westward in a rather marked fashion. Cooke, (1900), does not record its presence. Sclater, (1912), states that: "The Blue Jay has only recently been recorded from Colorado." One pair nested at Greeley in the summer of 1924 and two pairs were observed nesting in the summer of 1925.

LONG-CRESTED JAY. Cyanocitta stelleri diademata. This species is seen commonly in the plains region during the cold weather when it is driven down from the higher levels.

WESTERN CROW. Corvus brachyrhynchos hesperis. Common in the northeastern region and as far south as Denver. According to Sclater it is rare in other parts of the State. Possibly this species is also extending its geographical range to the southwest.

Pinon Jay. Cyanocephalus cyanocephalus. One record, April 17, 1925.

COWBIRD. Molothrus ater ater. Two records; April 17, 1925 and April 25, 1925.

YELLOW-HEADED BLACKBIRD. Xanthocephalus xanthocephalus. An abundant summer resident in the South Platte and Cache la Poudre valleys. Earliest record, May 3, 1925.

RED-WINGED BLACKBIRD. Agelaius phoeniceus. Another abundant summer resident. Earliest record, January 15, 1924. Common on January 20 of that year. These records, however, are not typical; ordinarily this species is not well represented until the first week in April.

WESTERN MEADOWLARK. Sturnella neglecta. An abundant summer resident. Earliest record, April 1, 1924.

Bullock's Oriole. Icterus bullocki. A common summer resident, arriving about the first of June.

Brewer's Blackbird. Euphagus cyanocephalus. A common summer resident. First record, April 17, 1925.

Bronzed Grackle. Quiscalus quiscula aeneus. Appeared periodically in large flocks. Also seems to be extending its range westward.

House Finch. Carpodacus mexicanus frontalis. An abundant summer resident in the vicinity of towns.

ARKANSAS GOLDFINCH. Astragalinus psaltria psaltria. Two records; May 12, 1924 and May 17, 1924.

PINE SISKIN. Spinus pinus. One record, May 11, 1925.

House Sparrow. Passer domesticus. Common at all times. It was noted that this species flocked to the fields and vacant lots to eat grasshoppers when they made their first appearance in numbers.

Western Vesper-Sparrow. *Pooceetes gramineus confinis*. One record, May 12, 1925.

Western Savannah Sparrow. Passerculus sandwichensis alaudinus. One record, May 4, 1924.

Western Grasshopper Sparrow. Ammodramus savanuarum bimaculatus. One record. May 12, 1925.

WESTERN LARK Sparrow. Chondestes grammacus strigatus. One record, April 10, 1925.

WHITE-CROWNED SPARROW, Zonotrichia leucophrys leucophrys, and Gambel's Sparrow, Zonotrichia leucophrys gambeli. Common in the migration season. The White-crowned Sparrow is a summer resident.

Western Chipping Sparrow. Spizella passerina arizonae. One record, April 10, 1925.

CLAY-COLORED SPARROW. Spizella pallida. One record, May 11. 1925.

Gray-Headed Junco. Junco phaeonotus caniceps. Two records; April 1, 1924 and April 6, 1924.

GREEN-TAILED TOWHEE. *Oberholseria chlorura*. One record, July 11. 1925, from Fort Collins. This species was common at higher altitudes along the Eastern Slope.

BLACK-HEADED GROSBEAK. *Hedymeles melanocephalus*. A common summer resident in and about towns. First arrival noted on May 12, 1924.

LAZULI BUNTING. Passerina amoena. Common summer resident. Appeared in numbers about the middle of June.

LARK BUNTING. Calamospiza melanocorys. An abundant summer resident east of Fort Morgan. Abundant at Julesburg. Less common at Greeley. A few records from the foothills region between Loveland and Fort Collins.

CLIFF SWALLOW. Petrochelidon lunifrons lunifrons. A summer resident in 1924 and 1925.

Bank Swallow. *Riparia riparia*. Although supposedly rare in Colorado this species was observed nesting near Grecley in 1924 and 1925. A colony was located in a sandy bank not far from the Cache la Poudre River. The colony contained about twenty adult birds.

RED-EYED VIREO. Vireosylva olivacea. One record, June 8, 1925, near Fort Collins.

YELLOW WARBLER. Dendroica aestiva. An abundant summer resident. The first arrivals were noted on May 12, 1924 and May 13, 1925. Young birds were able to fly on July 13, 1924.

Audubon's Warbler. Dendroica auduboni auduboni. Common during the migration season. First spring arrivals noted on May 13, 1925.

REDSTART. Setophaga ruticilla. One record, May 12, 1924.

DIPPER. Cinclus mexicanus unicolor. Typically a bird of the mountain streams, this species was recorded from the foothills region near Loveland on February 15, 1924.

WESTERN MOCKINGBIRD. Mimus polyglottos leucopterus. A regular but not common summer resident. Recorded on May 12, 1924 and June 30, 1925.

CATBIRD. Dumetella carolinensis. A fairly common summer resident in the neighborhood of towns.

Brown Thrasher. Toxostoma rujum. One record, May 28, 1925.

Western House Wren. Troglodytes aedon parkmani. One record, May 28, 1925.

Red-Breasted Nuthatch. Sitta canadensis. One individual of this species was attracted to a piece of suet placed on a window sill on several occasions during January and February, 1924.

Long-tailed Chickadee. Penthestes atricapillus septentrionalis. Three records; January 15, 1924, April 1, 1924, and May 28, 1925.

Ruby-crowned Kinglet. Regulus calendula calendula. One record, February 15, 1924.

OLIVE-BACKED THRUSH. Hylocichla ustulata swainsoni. A common migrant. First spring record on May 12, 1924.

Western Robin. *Planesticus migratorius propinquus*. An abundant summer resident. First spring record on February 15, 1924.

MOUNTAIN BLUEBIRD. Sialia currucoides. Common as a migrant. First arrival noted on March 4, 1925, near Loveland.

SUMMARY

The chief inference drawn from two years of study of the birds in this region was that certain species are tending to extend their ranges into Colorado from the northeast. After all, this is not at all surprising, in fact it is just what might be expected under the existing circumstances. A new region has been opened to agricultural pursuits, insects that feed upon the crops have become abundant, and the birds which feed upon the insects extend their ranges as an adjustment in the economy of nature.

Perhaps we should expect a more marked movement than has actually materialized. However, there are at least two factors that would tend to hinder or delay such an extension of geographical ranges. The region has its own native fauna which would offer strong competition for any new species. For instance, the House Finch seems to have no difficulty in holding its own in competition with the House Sparrow. Then too, the irrigated and cultivated region consists of a belt of land lying along the foothills. Aside from the South Platte Valley which extends into Colorado diagonally from the northeast, the eastern plains are comparatively barren and treeless. Hence there would be little incentive for a westward movement of birds except along the Platte River.

The species which seem to have become more common in north-eastern Colorado in recent years are the Bob-white, the Yellow-billed Cuckoo, the Blue Jay, and the Bronzed Grackle. To this list might be added the Kingbird, the Western Crow, and the Bank Swallow.

Just how important such a movement, if it really exists, may prove to be is a question that cannot be answered at the present time. It would seem possible, however, that the movement might become more marked as more land in northeastern Colorado is opened to cultivation.

COE COLLEGE.
CEDAR RAPIDS, IOWA.